

### **ABSTRACT OF THE DISCLOSURE**

A method and apparatus for provide highly efficient traffic routing for a wide range of possible traffic matrices (TM) in an intra-domain network. That routing optimally balances the traffic loads over a range of traffic matrices so as to minimize the deviation for any particular traffic matrix from the optimal routing. Such a routing provides a guaranteed performance ratio against the best possible network routing. The invention utilizes a method of optimally configuring a traffic network based on solving a linear program to obtain the optimal routing, and then configuring the routing on the network accordingly.